

GKN Driveline Deutschland GmbH
Carl-Legien-Strasse 10
63073 Offenbach

16th July 2003
Ne/bec (20030339)
Q03027DE00

Twin-ball joint with improved ball cage

Abstract

A constant velocity joint in the form of a counter track joint, having the following characteristics:

- an outer joint part 12 which comprises a first longitudinal axis as well as an attaching end and an aperture end positioned axially opposite one another, and which comprises outer ball tracks 22,

an inner joint part which comprises a second longitudinal axis and attaching means for a shaft pointing towards the aperture end of the outer joint part 12, and which comprises inner ball tracks 23,

the outer ball tracks 22 and the inner ball tracks 23 form pairs of tracks 22, 23 with one another which each accommodate balls,

circumferentially adjoining pairs of tracks 22₁, 23₁, comprise centre lines of the outer and inner ball tracks which, when the longitudinal axes are aligned, are positioned in planes which extend parallel relative to one another and are symmetric relative to the longitudinal axes,

a ball cage is positioned between the outer joint part 12 and the inner joint part and comprises circumferentially distributed cage windows which each accommodate pairs of balls of adjoining pairs of tracks positioned in parallel planes,

the circumferential length of second cage windows 18 for second pairs of balls 14 is smaller than the circumferential length of first cage windows for first pairs of balls.

Figure 1